Gulf of Mexico Harmful Algal Bloom Bulletin

1 December 2005

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: November 28, 2005

Conditions Report

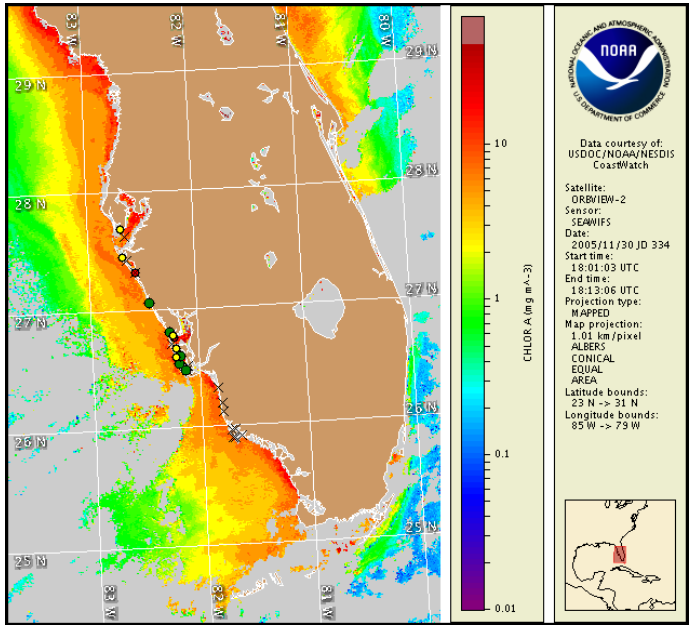
Harmful algal blooms have been identified in patches along SW Florida from Pinellas to Lee County and from Dixie to Levy County. Today through Saturday patchy very low to low impacts are possible from Pinellas to Lee County and Dixie to Levy County. Impacts may increase to moderate levels in Pinellas, Dixie and Levy Counties on Sunday; with continued patchy very low to low impacts from Manatee to Charlotte County. No dead fish have been reported in SW Florida over the past few days. Dead fish smell, while unpleasant, does not produce the same respiratory irritation as harmful algal blooms.

Analysis

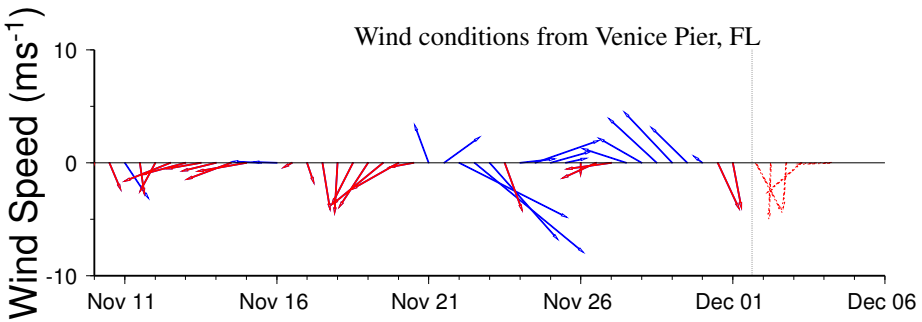
A bloom continues to extend along the SW Florida coast from Pinellas County to offshore regions of Collier County in varying intensities. Samples reported by FWRI confirmed medium concentrations of *K. brevis* offshore of Clearwater (11/28) and a high concentration offshore northern Collier County (FWRI, 11/26). Continued patches of very low to low *K. brevis* concentrations were found alongshore this week from Pinellas to Lee County; no presence of *Karenia* found in coastal Collier County as of 11/28. The bloom appears to have weakened in intensity over the past few days according to satellite imagery. Chlorophyll levels are primarily below 10μg/L from Pinellas to Collier County and below 5μg/L offshore where levels were previously above 20μg/L. Chlorophyll is slightly more elevated offshore Tampa Bay from 27°32N, 82°56W to 27°23N, 82°46W, and near Big Hickory Pass in Lee County (12μg/L), as well as along Collier County (<10μg/L). Continued sampling recommended. Wind transport model analyses indicate possible northward bloom movement 11-20km since 11/28. Offshore winds throughout the weekend should minimize coastal impacts, with reports of dead fish possible on Sunday. Slight northerly and offshore bloom transport is possible.

The bloom persists along Dixie and Levy Counties. Continued low concentrations of *K. brevis* were identified by FWRI on 11/29 offshore northern Levy County. Chlorophyll concentrations greater than 20μg/L remain alongshore southern Dixie and northern Levy Counties according to satellite imagery.

~Fisher, Bronder

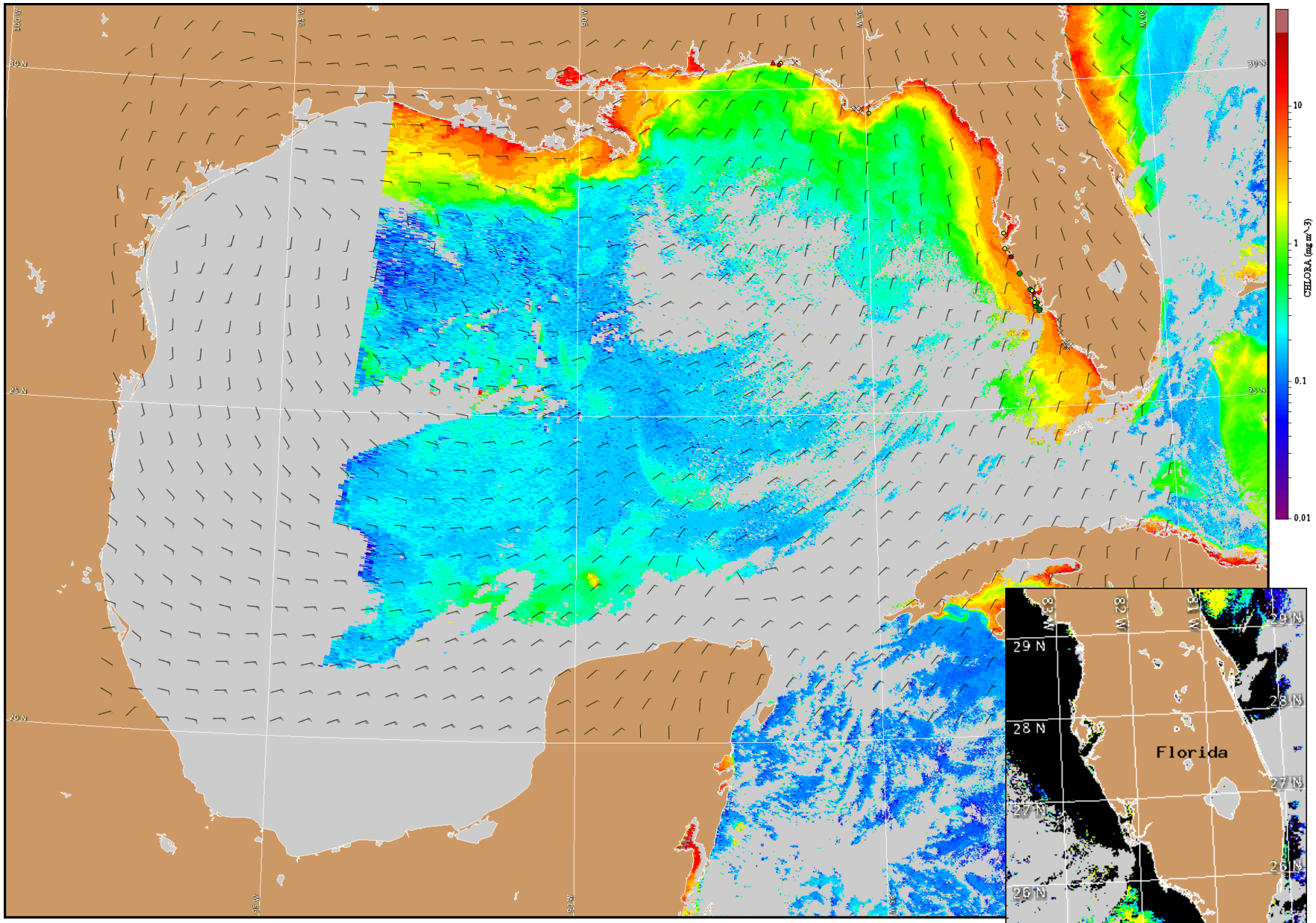


Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from November 21-22 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

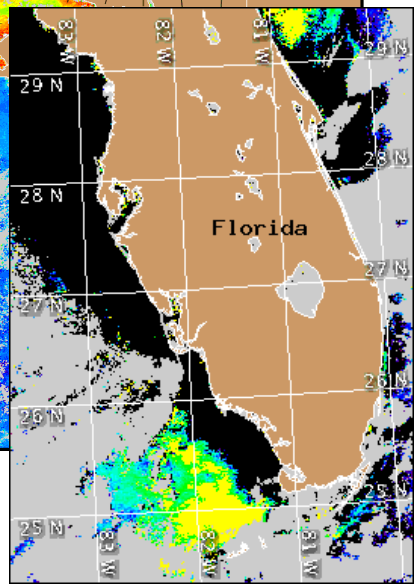


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

SW Florida: Mild (5-10kts, 3-5m/s) northerlies today will shift northeasterly Friday, and become easterly Friday night. Southeasterly winds (10kts, 5m/s) on Saturday will shift southerly Sunday, strengthening to 15kts (8m/s). Strong northerly winds forecasted for Monday.



Satellite chlorophyll image and forecast winds for December 2, 2005 12Z with cell concentration sampling data from November 21-22 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Verifi ed HAB areas shown in red. Other bloom areas shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Cedar Key, FL